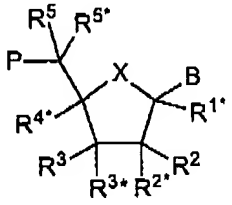
141. An oligomer comprising at least one LNA nucleoside of the general formula I



I

wherein X is selected from -O-;

I'

B is selected from hydrogen, hydroxy, optionally substituted C_{1-4}-alkoxy, optionally substituted C_{1-4}-alkyl, optionally substituted C_{1-4}-acyloxy, nucleobases, DNA intercalators, photochemically active groups, thermochemically active groups, chelating groups, reporter groups, and ligands;

P designates the radical position for an internucleoside linkage to a succeeding monomer, or a 5'-terminal group, such internucleoside linkage or 5'-terminal group optionally including the substituent R^5;

one of the substituents R^2, R^{2*}, R^3, and R^{3*} is a group P* which designates an internucleoside linkage to a preceding monomer, or a 3'-terminal group;

one pair of non-geminal substituents R^{4*}, and R^{2*}, designating a biradical consisting of 2-5 groups/atoms selected from –(CR*R*)r-Y-(CR*R*)s- , -(CR*R*)r-Y-(CR*R*)s-Y-, -Y-(CR*R*)r+s-Y-, -Y-(CR*R*)r-Y-(CR*R*)s-, -(CR*R*)r+s-, each R* is independently selected from hydrogen, halogen, hydroxy, mercapto, amino, optionally substituted C1-6-alkoxy, optionally substituted C1-6-alkyl, DNA intercalators, photochemically active groups, thermochemically active groups, chelating groups, reporter groups, and ligands, Y is –O-, -S-, 0 (zero) or -N(RN)-, and each of r and s is 0-4 with the proviso that the sum r+s is 1-4, and provided that when the biradical is –(CR*R*)r-Y-(CR*R*)s-, then Y is –S- or -N(RN*)-; and

each of the substituents R^{1*}, R^2, R^3, R^5, R^{5*}, and R^{6*}, and R^{7*} which are present and not involved in P, P^* is independently selected from hydrogen, optionally substituted C_{1-12}-alkyl, optionally substituted C_{2-12}-alkenyl, optionally substituted C_{2-12}-alkynyl, hydroxy, C_{1-12}-alkoxy, C_{2-12}-alkenyloxy, carboxy, C_{1-12}-alkoxycarbonyl, C_{1-12}-alkylcarbonyl, formyl, aryl, aryloxy-carbonyl, aryloxy, arylcarbonyl, heteroaryl, heteroaryloxy-carbonyl, heteroaryloxy, heteroarylcarbonyl, amino, mono- and di(C_{1-6}-alkyl)amino, carbamoyl, mono- and di(C_{1-6}-alkyl)-amino-carbonyl, amino-C_{1-6}-alkyl-aminocarbonyl, mono- and di(C_{1-6}-alkyl)amino-C_{1-6}-alkyl-aminocarbonyl, C_{1-6}-alkyl-carbonylamino, carbamido, C_{1-6}-alkanoyloxy, sulphono, C_{1-6}-alkylsulphonyloxy, nitro, azido, sulphanyl, C_{1-6}-alkylthio, halogen, DNA intercalators, photochemically active groups, thermochemically active groups, chelating groups, reporter groups, and ligands, where aryl and heteroaryl may be optionally substituted;

I1 COOH.

(i) and basic salts and acid addition salts thereof.

I2 154. An oligomer of claim 151 wherein R^{3*} designates P^*.

I3 156. An oligomer of claim 154 wherein , R^2 is selected from hydrogen, hydroxy, and optionally substituted C_{1-6}-alkoxy, and R^{1*}, R^3, R^5, and R^{5*} designate hydrogen.

159. An oligomer of claim 156 wherein B is selected from nucleobases.

I4 160. An oligomer of claim 159 wherein the oligomer comprises at least one LNA nucleoside wherein B is selected from adenine, guanine, thymine, cytosine, uracil, purine, xanthine, diaminopurine, 8-oxo-N^6-methyladenine, 7-deazaxanthine, 7-deazaguanine, N^4,N^4-ethanocytosin, N^6,N^6-ethano-2,6-diaminopurine, 5-methylcytosine, 5-(C^3-C^6)-alkynylcytosine, 2,6-diaminopyrimidine,2,6-diaminopyrazine,1-methyl-pyrazolo[4,3-d]pyrimidine-5,7(4H,6H)-dione,1-methyl-pyrazolo[4,3-d]pyrimidine-5,7(4H,6H)-dione, 5-fluorouracil, 5-bromouracil, pseudoisocytosine, 2-hydroxy-5-methyl-4-triazolopyridin, isocytosine, isoguanin, and inosine.

176. An oligomer of claim 141 wherein each of the substituents R^{1*}, R^2, R^3, R^{3*}, R^5, R^{5*}, R^6, R^{6*}, R^7, and R^{7*} of the one or more LNA nucleosides, which are present and not involved in P, P^*, is independently selected from hydrogen, optionally substituted C_{1-6}-alkyl, optionally substituted C_{2-6}-alkenyl, hydroxy, C_{1-6}-alkoxy, C_{2-6}-alkenyloxy, carboxy, C_{1-6}-alkoxycarbonyl, C_{1-6}-alkylcarbonyl, formyl, amino, mono- and di(C_{1-6}-alkyl)amino, carbamoyl, mono- and di(C_{1-6}-alkyl)-amino-carbonyl, C_{1-6}-alkyl-carbonylamino, carbamido, azido, C_{1-6}-alkanoyloxy, sulphono, sulphanyl, C_{1-6}-alkylthio, DNA intercalators, photochemically active groups, thermochemically active groups, chelating groups, reporter groups, and ligands, and halogen, where two geminal substituents together may designate oxo, and where R^{N*}, when present and not involved in a biradical, is selected from hydrogen and C_{1-4}-alkyl.

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177. An oligomer of claim 141 wherein each of the substituents R^{1*}, R^2, R^3, R^{3*}, R^5, R^{5*}, R^6, R^{6*}, R^7, and R^{7*} of the LNA(s), which are present and not involved in P, P^* designate hydrogen.

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195. A diagnostic or analysis kit comprising an oligonucleotide of claim 141.

REMARKS

As an initial matter, Applicants wish to thank Examiner Riley for courtesies recently extended to them and the undersigned.

Claims 142, 143, 150-153, 155, 157, 158, 161-172, 193, and 203-208 have been cancelled without prejudice or disclaimer of any subject matter. The right to file subsequent applications on the cancelled subject matter is reserved. Claims 141, 154, 156, 159, 160, 176, 177, and 195 have been amended. The present claim amendments are intended to secure early allowance of claims that feature oligomers of current interest to the Applicants. The present amendments to the claims is not related to patentability and should not be construed as such.